CIVIL EXPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC-MS-PMC-2016-17 **Date:** 18.11.2016

### Agregate Impact Value
IS: 2386 Part IV

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| **Agency** | **Sri.Muraliswamy,** Contractor, Bangalore. |
| **Name of the Work** | Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore. |
| **Reference** | EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016 |
| **Location** | At Site |
| **Type of Mix** | Wet Mix macadam |
| **Date of Testing** | 18.11.2016 |

| Sl No. | Details | Trial No. 1 | Trial No. 2 | Trial No. 3 | Average |
|---|---|---|---|---|---|
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 385 | 387 | 388 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 80 | 81 | 83 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 305 | 306 | 305 | |
| 4 | Aggregate Impact value = percent fines<br>100* ($W_2/W_1$)% | 20.78 | 20.93 | 21.39 | **21.03** |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

**Note:**

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples received in the laboratory

→ Any Query regarding the report must be reported within 90 days from the date of testing.

For Civil Expert

Authorised Signature

AE -12
ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC-MS-PMC-2016-17 **Date:** 21.11.2016

### Agregate Impact Value
IS: 2386 Part IV

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| **Agency** | **Sri.Muraliswamy,** Contractor, Bangalore. |
| **Name of the Work** | Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore. |
| **Reference** | EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016 |
| **Location** | At Site |
| **Type of Mix** | Wet Mix macadam |
| **Date of Testing** | 21.11.2016 |

| Sl No. | Details | Trial No. | | | Average |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 389 | 392 | 390 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 82 | 80 | 86 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 307 | 312 | 304 | |
| 4 | Aggregate Impact value = percent fines<br>100* ($W_2/W_1$)% | 21.08 | 20.41 | 22.05 | **21.18** |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

**Note:**

→ This test report should not be reproduced except in full, without written approval of the laboratory
→ The results indicated above are based on the tests carried out on the samples received in the laboratory
→ Any Query regarding the report must be reported within 90 days from the date of testing.

AE-12

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For Civil Expert

Authorised Signature

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC-MS-PMC-2016-17 **Date:** 23.11.2016

### Agregate Impact Value
IS: 2386 Part IV

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| **Agency** | **Sri.Muraliswamy,** Contractor, Bangalore. |
| **Name of the Work** | Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore. |
| **Reference** | EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016 |
| **Location** | At Site |
| **Type of Mix** | Wet Mix macadam |
| **Date of Testing** | 23.11.2016 |

| Sl No. | Details | Trial No. 1 | Trial No. 2 | Trial No. 3 | Average |
|---|---|---|---|---|---|
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 382 | 380 | 378 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 80 | 78 | 82 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 302 | 302 | 296 | |
| 4 | Aggregate Impact value = percent fines 100* ($W_2/W_1$)% | 20.94 | 20.53 | 21.69 | **21.05** |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

**Note:**

→ This test report should not be reproduced except in full, without written approval of the laboratory

→ The results indicated above are based on the tests carried out on the samples received in the laboratory

→ Any Query regarding the report must be reported within 90 days from the date of testing.

AG-12
23/11

For Civil Expert

Authorised Signature

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ. ರವೀಂದ್ರನಗರ. ಬೆಂಗಳೂರು

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC-MS-PMC-2016-17 Date : 11.11.2016

### GRADATION FOR GSB (CLOSE GRADED)

**Client** : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

**Agency** : **Sri.Muraliswamy,** Contractor, Bangalore.

**Name of work** : Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore.

**Reference** : EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016

**Date of Testing** : 11.11.2016

**Sample Source** : GSB Mix Plant Bangalore. **Oven Dry Wt (gm) :** 13200

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Specified Limits |
|---|---|---|---|---|---|
| 75.0 | 0 | 0 | 0.00 | 0 | 100 |
| 53.0 | 215 | 215 | 1.63 | 98.37 | 80-100 |
| 26.50 | 2465 | 2680 | 20.30 | 79.70 | 55-90 |
| 9.50 | 3210 | 5890 | 44.62 | 55.38 | 35-65 |
| 4.75 | 2750 | 8640 | 65.45 | 34.55 | 25-55 |
| 2.36 | 1460 | 10100 | 76.52 | 23.48 | 20-40 |
| 0.425 | 1196 | 11296 | 85.58 | 14.42 | 10-25 |
| 0.075 | 1247 | 12543 | 95.02 | 4.98 | 3-10 |
| Total | 13200 | | | | |

**Remarks:** Satisfies MORTH Specifications as per Table 400-1, Grading I

AE -12

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported immediately.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For Civil Expert

Authorised Signature

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC-MS-PMC-2016-17

Date : 14.11.2016

### GRADATION FOR GSB (CLOSE GRADED)

**Client** : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

**Agency** : **Sri.Muraliswamy,** Contractor, Bangalore.

**Name of work** : Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore.

**Reference** : EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016

**Date of Testing** : 14.11.2016

**Sample Source** : GSB Mix Plant Bangalore. **Oven Dry Wt (gm) :** 13200

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Specified Limits |
|---|---|---|---|---|---|
| 75.0 | 0 | 0 | 0.00 | 0 | 100 |
| 53.0 | 223 | 223 | 1.69 | 98.31 | 80-100 |
| 26.50 | 2541 | 2764 | 20.94 | 79.06 | 55-90 |
| 9.50 | 3165 | 5929 | 44.92 | 55.08 | 35-65 |
| 4.75 | 2854 | 8783 | 66.54 | 33.46 | 25-55 |
| 2.36 | 1465 | 10248 | 77.64 | 22.36 | 20-40 |
| 0.425 | 1132 | 11380 | 86.21 | 13.79 | 10-25 |
| 0.075 | 1256 | 12636 | 95.73 | 4.27 | 3-10 |
| Total | 13200 | | | | |

**Remarks:** Satisfies MORTH Specifications as per Table 400-1, Grading I

AE-12

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported immediately.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For Civil Expert

Authorised Signature

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

**NABL ACCREDITED AS PER ISO/IEC 17025:2005**

Job No.: CECTC-MS-PMC-2016-17

Date : 11.11.2016

## ATTERBERG LIMITS TEST FOR GSB (CLOSE GRADED)
### IS : 2720 (Part - 5)

**Client** : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

**Agency** : **Sri.Muraliswamy,** Contractor, Bangalore.

**Name of work** : Improvements and Asphalting of Ward Roads & Connecting Roads in Ward No. 12 of Shettyhalli Sub Division Dasarahalli zone. Package No. DZ 2016-16-(01) (17 works), BBMP, Banglore.

**Reference** : EE/DD/PACKAGE/WO/77/2016-17 Dated:23.10.2016

**Date of Testing** : 11.11.2016

As per MORTH Table : 400-13

| Sl. No. | Particulars | Test Results | Standards as per Specifications |
|---|---|---|---|
| 1 | Liquid Limit, % | 22.95 | 25.0% Maximum. |
| 2 | Plasticity Index, % | Non Plastic | 6.0% Maximum. |

As per IS: 2720 Part 5

**Note:**
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported immediately.

AE-12

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

For Civil Expert

Authorised Signature